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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/072,462 | 02/05/2002 | Densen Cao | 5061.15 P | 9466 |

7590 03/26/2004

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EXAMINER

LEWIS, RALPH A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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3732

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/072,462

Applicant(s)

CAO, DENSEN

Examiner

Ralph A. Lewis

Art Unit

3732

-- Th MAILING DATE of this communication app ars on th cover sh t with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-17 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5, 6, 7.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 4 and 11, lines 4 and 5, there is no antecedent basis for "said wand housing."

Rejections based on Prior Art

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianchetti et al (EP 1 090608) in view of Logan et al (US 6,692,251).

Bianchetti et al in Figure 1 disclose a dental photo handpiece having a housing, a light control actuator 19 at the top of the housing and semi conductor light emitting diodes 31 directing light through the bottom of the handpiece the bottom (opposite the

top actuator 19). Bianchetti fails to disclose the claim elongated secondary heat sink or the primary heat sink. Logan et al for a similar dental curing handpiece discloses that it is desirable to provide for an elongated secondary heat sink 39 and a primary heat sink for conducting heat from the light emitting diodes thereby improving the performance of the device. To have provided the Bianchetti et al dental curing handpiece with primary and secondary as those disclosed Logan et al in order to improve the efficiency of the device would have been obvious to one of ordinary skill in the art in view of the Logan et al teaching. In regard to 11, the Bianchetti actuator 19 is illustrated as being provided at the top and to one side of the housing.

Allowable Subject Matter

Claims 2 and 3 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the claims from which they depend.

Prior Art

Applicant's information disclosure statements of February 29, 2002 and August 6, 2002 have been considered an initialed copy enclosed herewith.

Adam et al (6,419,483 B1), Boutoussov et al (US 6,439,888 B1), Fregoso (US 6,611,110 B1), Melikechi et al (6,511,317), Otsuka (6,638,063), Decaudin et al (6,692,250), Plank (6,695,614), Fischer et al (6,702,576) and Reipur (WO 02/33312 A2) are made of record.


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Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(703) 308-0770**. Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (703) 308-2582.

R.Lewis
March 22, 2004



Ralph A. Lewis
Primary Examiner
Au3732